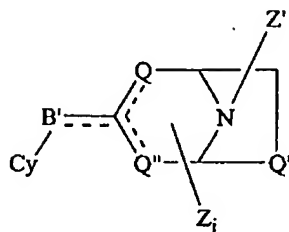


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**In the Claims**

1. (Currently Amended) A compound having the structure represented by the formula:



wherein Cy represents a 5 or 6 member aromatic ring,

B' is alkylenic, ethylenic, or acetylenic,

Q is  $(CH_2)_m$ , Q' is  $(CH_2)_p$ , and Q'' is  $(CH_2)_q$  where m is 1, 2, 3 or 4, p is 0, 1, 2 or 3, and q is 0, 1 or 2, and the values of m, p and q are selected such that the azabicyclic ring shown in the structure contains 6, 7, 8 or 9 members,

Z represents a non-hydrogen substituent group selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo,  $-NR'R''$ ,  $-CF_3$ ,  $-OH$ ,  $-CN$ ,  $-NO_2$ ,  $-C_2R'$ ,  $-SH$ ,  $-SCH_3$ ,  $-N_3$ ,  $-SO_2CH_3$ ,  $-OR'$ ,  $-SR'$ ,  $-C(=O)NR'R''$ ,  $-NR'C(=O)R'$ ,  $-C(=O)R'$ ,  $-C(=O)OR'$ ,  $-(CH_2)_xOR'$ ,  $-OC(=O)R'$ ,  $-(CR'R'')_xOCH_2C_2R'$ ,  $-(CR'R'')_xC(=O)R'$ ,  $-O(CR'R'')_xC(=O)R'$ ,  $-C_2(CR'R'')_xOR'$ ,  $-(CR'R'')_xNR'R''$ ,  $-OC(=O)NR'R''$  and  $-NR'C(=O)OR'$ ,

wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or  $C_1$ - $C_8$  alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

R' and R'' can form a cycloalkyl functionality,

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any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents,

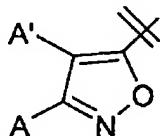
j is an integer from 0 to 5,

Z' represents hydrogen or lower alkyl,

the dotted lines in the structure signify bonds that can be either carbon-carbon single bonds or carbon-carbon double bonds with the proviso that where B' is alkylenic, only one dotted line represents a carbon-carbon double bond, and when B' is ethylenic or acetylenic, no dotted line represents a carbon-carbon double bond, and

ethylenic is  $-CE'=CE''-$ , wherein E' and E'' are hydrogen or a non-hydrogen substituent as defined above with respect to Z.

2. (Previously Presented) The compound of Claim 1 wherein Cy is:



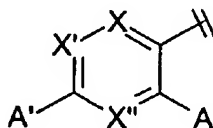
wherein A and A' individually are either hydrogen or suitable non-hydrogen substituent species selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo,  $-NR'R''$ ,  $-CF_3$ ,  $-OH$ ,  $-CN$ ,  $-NO_2$ ,  $-C_2R'$ ,  $-SH$ ,  $-SCH_3$ ,  $-N_3$ ,  $-SO_2CH_3$ ,  $-OR'$ ,  $-SR'$ ,  $-C(=O)NR'R''$ ,  $-NR'C(=O)R'$ ,  $-C(=O)R'$ ,  $-C(=O)OR'$ ,  $-(CH_2)_xOR'$ ,  $-OC(=O)R'$ ,  $-(CR'R'')_xOCH_2C_2R'$ ,  $-(CR'R'')_xC(=O)R'$ ,  $-O(CR'R'')_xC(=O)R'$ ,  $-C_2(CR'R'')_xOR'$ ,  $-(CR'R'')_xNR'R''$ ,  $-OC(=O)NR'R''$  and  $-NR'C(=O)OR'$ , wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or  $C_1$ - $C_8$  alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

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R' and R" can form a cycloalkyl functionality, and  
 any of the foregoing groups indicated as being substituted can be suitably substituted with  
 at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo,  
 and amino substituents.

3. (Previously Presented) The compound of Claim 1 wherein Cy is



X, X' and X'' are individually nitrogen, nitrogen bonded to oxygen or carbon bonded to a  
 substituent species characterized as having a sigma m value between about -0.3 and about 0.75;  
 A and A' individually are either hydrogen or suitable non-hydrogen substituent species having a  
 sigma m value between about -0.3 and about 0.75,

wherein substituent species having a sigma m value between about -0.3 and about 0.75  
 are selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted  
 alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted  
 aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo, -NR'R'', -CF<sub>3</sub>, -OH, -  
 CN, -NO<sub>2</sub>, -C<sub>2</sub>R', -SH, -SCH<sub>3</sub>, -N<sub>3</sub>, -SO<sub>2</sub>CH<sub>3</sub>, -OR', -SR', -C(=O)NR'R'', -NR'C(=O)R', -C(=O)R',  
 -C(=O)OR', -(CH<sub>2</sub>)<sub>x</sub>OR', -OC(=O)R', -(CR'R'')<sub>x</sub>OCH<sub>2</sub>C<sub>2</sub>R', -(CR'R'')<sub>x</sub>C(=O)R', -  
 O(CR'R'')<sub>x</sub>C(=O)R', -C<sub>2</sub>(CR'R'')<sub>x</sub>OR', -(CR'R'')<sub>x</sub>NR'R'', -OC(=O)NR'R'' and -NR'C(=O)OR',

wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or C<sub>1</sub>-C<sub>8</sub> alkyl, an aromatic group-containing species  
 or a substituted aromatic group-containing species, where the aromatic group-containing species  
 are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl,  
 or

R' and R'' can form a cycloalkyl functionality, and

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any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents.

4. (Original) The compound of Claim 3 wherein X" is nitrogen.
5. (Original) The compound of Claim 3 wherein X" is selected from the group consisting of CNO<sub>2</sub>, CNH<sub>2</sub>, CNHCH<sub>3</sub> and CN(CH<sub>3</sub>)<sub>2</sub>.
6. (Original) The compound of Claim 3 wherein X' and X" are nitrogen.
7. (Original) The compound of Claim 3 wherein Cy represents a 3-pyridyl moiety.
8. (Currently Amended) A compound selected from the group consisting of:  
(E)- and (Z)-5-(2-(7-azabicyclo[2.2.1]hept-2-yl)ethenyl)isoxazole and  
(E)- and (Z)-5-(2-(7-azabicyclo[2.2.1]hept-2-yl)ethenyl)-3-methylisoxazole  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-6-yl)ethenyl)isoxazole~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-6-yl)ethenyl)-3-methylisoxazole~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-2-yl)ethenyl)isoxazole and~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-2-yl)ethenyl)-3-methylisoxazole.~~
9. (Currently Amended) A compound selected from the group consisting of:  
(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-methoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-ethoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-isopropoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-isobutoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-phenoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-benzyloxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane

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(E)- and (Z)-2-(2-(5-methoxymethyl-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane;  
(E)- and (Z)-2-(2-(5-phenyl-3-pyridyl) ethenyl)-7-azabicyclo[2.2.1]heptane, and  
(E)- and (Z)-2-(2-(5-hydroxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
~~(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-8-azabicyclo[3.2.1]octane~~  
~~(E)- and (Z)-6-(2-(3-pyridyl)ethenyl)-8-azabicyclo[3.2.1]octane and~~  
~~(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-9-azabicyclo[4.2.1]nonane.~~

10. (Currently Amended) A compound selected from the group consisting of:

2-(2-(3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-methoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-ethoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-isopropoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-isobutoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-phenoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-benzyloxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-methoxymethyl-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-phenyl-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane and  
2-(2-(5-hydroxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
~~2-(2-(3-pyridyl)ethynyl)-8-azabicyclo[3.2.1]octane~~  
~~6-(2-(3-pyridyl)ethynyl)-8-azabicyclo[3.2.1]octane and~~  
~~2-(2-(3-pyridyl)ethynyl)-9-azabicyclo[4.2.1]nonane.~~

11. (Original) The compound of Claim 1 wherein m is 1, 2 or 3.

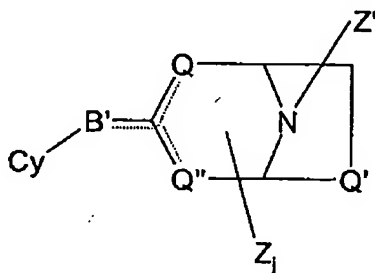
12. (Original) The compound of Claim 1 wherein p is 0, 1 or 2.

13. (Original) The compound of Claim 1 wherein q is 0 or 1.

14. (Original) The compound of Claim 1 wherein j is 0 or 1.

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15. (Original) The compound of Claim 1 wherein B' is ethylenic.
16. (Original) The compound of Claim 1 wherein B' is acetylenic.
17. (Original) The compound of Claim 1 wherein B' is a two carbon atom bridging species.
18. (Original) The compound of Claim 1 wherein j is 0; Z' is hydrogen or lower alkyl; m is 1, 2 or 3; q is 0 or 1; p is 1 or 2; and each of E' and E'' is hydrogen.
19. (Original) The compound of Claim 18 wherein the sum of m and q is 3 or less.
20. (Previously Presented) The compound of Claim 1 wherein Cy is 3-pyridinyl unsubstituted or substituted in the 5 and/or 6 position(s), 5-pyrimidinyl unsubstituted or substituted in the 2 position, or 3- or 5-isoxazolyl unsubstituted or substituted in the 4 and/or 5 and 3 and/or 4 positions respectively.
21. (Currently Amended) A method for treating a disorder characterized by an alternation in normal neurotransmitter release, the method comprising administering an effective amount of a compound having the structure represented by the formula:



wherein Cy represents a 5 or 6 member aromatic ring,

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B' is alkylenic, ethylenic, or acetylenic,

Q is  $(CH_2)_m$ , Q' is  $(CH_2)_p$ , and Q'' is  $(CH_2)_q$  where m is 1, 2, 3 or 4, p is 0, 1, 2 or 3, and q is 0, 1 or 2, and the values of m, p and q are selected such that the azabicyclic ring shown in the structure contains 6, 7, 8 or 9 members,

Z represents a non-hydrogen substituent group selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo,  $-NR'R''$ ,  $-CF_3$ ,  $-OH$ ,  $-CN$ ,  $-NO_2$ ,  $-C_2R'$ ,  $-SH$ ,  $-SCH_3$ ,  $-N_3$ ,  $-SO_2CH_3$ ,  $-OR'$ ,  $-SR'$ ,  $-C(=O)NR'R''$ ,  $-NR'C(=O)R'$ ,  $-C(=O)R'$ ,  $-C(=O)OR'$ ,  $-(CH_2)_xOR'$ ,  $-OC(=O)R'$ ,  $-(CR'R'')_xOCH_2C_2R'$ ,  $-(CR'R'')_xC(=O)R'$ ,  $-O(CR'R'')_xC(=O)R'$ ,  $-C_2(CR'R'')_xOR'$ ,  $-(CR'R'')_xNR'R''$ ,  $-OC(=O)NR'R''$  and  $-NR'C(=O)OR'$ ,

wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or  $C_1$ - $C_8$  alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

R' and R'' can form a cycloalkyl functionality,

any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents,

j is an integer from 0 to 5,

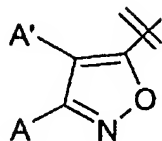
Z' represents hydrogen or lower alkyl,

the dotted lines in the structure signify bonds that can be either carbon-carbon single bonds or carbon-carbon double bonds with the proviso that where B' is alkylenic, only one dotted line represents a carbon-carbon double bond, and when B' is ethylenic or acetylenic, no dotted line represents a carbon-carbon double bond, and

ethylenic is  $-CE'=CE''-$ , wherein E' and E'' are hydrogen or a non-hydrogen substituent as defined above with respect to Z.

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22. (Previously Presented) The method of Claim 21 whereby Cy is:



wherein A and A' individually are either hydrogen or suitable non-hydrogen substituent species selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo, -NR'R'', -CF<sub>3</sub>, -OH, -CN, -NO<sub>2</sub>, -C<sub>2</sub>R', -SH, -SCH<sub>3</sub>, -N<sub>3</sub>, -SO<sub>2</sub>CH<sub>3</sub>, -OR', -SR', -C(=O)NR'R'', -NR'C(=O)R', -C(=O)R', -C(=O)OR', -(CH<sub>2</sub>)<sub>x</sub>OR', -OC(=O)R', -(CR'R'')<sub>x</sub>OCH<sub>2</sub>C<sub>2</sub>R', -(CR'R'')<sub>x</sub>C(=O)R', -O(CR'R'')<sub>x</sub>C(=O)R', -C<sub>2</sub>(CR'R'')<sub>x</sub>OR', -(CR'R'')<sub>x</sub>NR'R'', -OC(=O)NR'R'' and -NR'C(=O)OR',

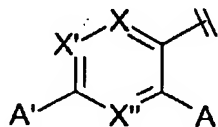
wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or C<sub>1</sub>-C<sub>8</sub> alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

R' and R'' can form a cycloalkyl functionality, and

any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents.

23. (Previously Presented) The method of Claim 21 whereby Cy is





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X, X' and X'' are individually nitrogen, nitrogen bonded to oxygen or carbon bonded to a substituent species characterized as having a sigma m value between about -0.3 and about 0.75, A and A' individually are either hydrogen or suitable non-hydrogen substituent species having a sigma m value between about -0.3 and about 0.75,

wherein substituent species having a sigma m value between about -0.3 and about 0.75 are selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo, -NR'R'', -CF<sub>3</sub>, -OH, -CN, -NO<sub>2</sub>, -C<sub>2</sub>R', -SH, -SCH<sub>3</sub>, -N<sub>3</sub>, -SO<sub>2</sub>CH<sub>3</sub>, -OR', -SR', -C(=O)NR'R'', -NR'C(=O)R', -C(=O)R', -C(=O)OR', -(CH<sub>2</sub>)<sub>x</sub>OR', -OC(=O)R', -(CR'R'')<sub>x</sub>OCH<sub>2</sub>C<sub>2</sub>R', -(CR'R'')<sub>x</sub>C(=O)R', -O(CR'R'')<sub>x</sub>C(=O)R', -C<sub>2</sub>(CR'R'')<sub>x</sub>OR', -(CR'R'')<sub>x</sub>NR'R'', -OC(=O)NR'R'' and -NR'C(=O)OR',

wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or C<sub>1</sub>-C<sub>8</sub> alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

R' and R'' can form a cycloalkyl functionality, and

any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents.

24. (Original) The method of Claim 23 whereby X'' is nitrogen.

25. (Original) The method of Claim 23 whereby X'' is selected from the group consisting of CNO<sub>2</sub>, CNH<sub>2</sub>, CNHCH<sub>3</sub> and CN(CH<sub>3</sub>)<sub>2</sub>.

26. (Original) The method of Claim 23 whereby X' and X'' are nitrogen.

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27. (Original) The method of Claim 23 whereby Cy represents a 3-pyridyl moiety.

28. (Currently Amended) The method of Claim 21 whereby the compound is selected from the group consisting of:

(E)- and (Z)-5-(2-(7-azabicyclo[2.2.1]hept-2-yl)ethenyl)isoxazole and  
(E)- and (Z)-5-(2-(7-azabicyclo[2.2.1]hept-2-yl)ethenyl)-3-methylisoxazole  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-6-yl)ethenyl)isoxazole~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-6-yl)ethenyl)-3-methylisoxazole~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-2-yl)ethenyl)isoxazole and~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-2-yl)ethenyl)-3-methylisoxazole.~~

29. (Currently Amended) The method of Claim 21 whereby the compound is selected from the group consisting of:

(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-methoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-ethoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-isopropoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-isobutoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-phenoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-benzyloxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-methoxymethyl-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane;  
(E)- and (Z)-2-(2-(5-phenyl-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane, and  
(E)- and (Z)-2-(2-(5-hydroxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
~~(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-8-azabicyclo[3.2.1]octane~~  
~~(E)- and (Z)-6-(2-(3-pyridyl)ethenyl)-8-azabicyclo[3.2.1]octane and~~  
~~(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-9-azabicyclo[4.2.1]nonane.~~

30. (Currently Amended) The method of Claim 21 whereby the compound is selected from the group consisting of:

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2-(2-(3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-methoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-ethoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-isopropoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-isobutoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-phenoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-benzyloxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-methoxymethyl-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-phenyl-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane and  
2-(2-(5-hydroxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
~~2-(2-(3-pyridyl)ethynyl)-8-azabicyclo[3.2.1]octane~~  
~~6-(2-(3-pyridyl)ethynyl)-8-azabicyclo[3.2.1]octane and~~  
~~2-(2-(3-pyridyl)ethynyl)-9-azabicyclo[4.2.1]nonane.~~

31. (Original) The method of Claim 21 whereby m is 1, 2 or 3.

32. (Original) The method of Claim 21 whereby p is 0, 1 or 2.

33. (Original) The method of Claim 21 whereby q is 0 or 1.

34. (Original) The method of Claim 21 whereby j is 0 or 1.

35. (Original) The method of Claim 21 whereby B' is ethylenic.

36. (Original) The method of Claim 21 whereby B' is acetylenic.

37. (Original) The method of Claim 21 whereby B' is a two carbon atom bridging species.

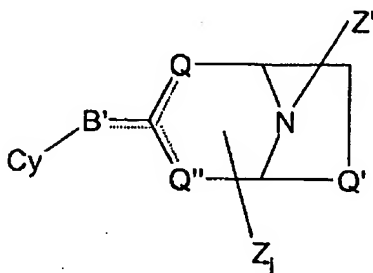
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38. (Original) The method of Claim 21 whereby  $j$  is 0;  $Z'$  is hydrogen or lower alkyl;  $m$  is 1, 2 or 3;  $q$  is 0 or 1;  $p$  is 1 or 2; and each of  $E'$  and  $E''$  is hydrogen.

39. (Original) The method of Claim 38 whereby the sum of  $m$  and  $q$  is 3 or less.

40. (Previously Presented) The method of Claim 21 whereby  $Cy$  is 3-pyridyl unsubstituted or substituted in the 5 and/or 6 position(s), 5-pyrimidinyl unsubstituted or substituted in the 2 position, or 3- or 5-isoxazolyl unsubstituted or substituted in the 4 and/or 5 and 3 and/or 4 positions respectively.

41. (Currently Amended) A pharmaceutical composition comprising an effective amount of a compound having the structure represented by the formula:



wherein  $Cy$  represents a 5 or 6 member aromatic ring,

$B'$  is alkylenic, ethylenic, or acetylenic,

$Q$  is  $(CH_2)_m$ ,  $Q'$  is  $(CH_2)_p$ , and  $Q''$  is  $(CH_2)_q$  where  $m$  is 1, 2, 3 or 4,  $p$  is 0, 1, 2 or 3, and  $q$  is 0, 1 or 2, and the values of  $m$ ,  $p$  and  $q$  are selected such that the azabicyclic ring shown in the structure contains 6, 7, 8 or 9 members,

$Z$  represents a non-hydrogen substituent group selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo,  $-NR'R''$ ,  $-CF_3$ ,  $-OH$ ,  $-CN$ ,  $-NO_2$ ,  $-C_2R'$ ,  $-SH$ ,  $-SCH_3$ ,  $-N_3$ ,  $-SO_2CH_3$ ,  $-OR'$ ,  $-SR'$ ,  $-C(=O)NR'R''$ ,  $-NR'C(=O)R'$ ,  $-C(=O)R'$ ,  $-C(=O)OR'$ ,  $-(CH_2)_xOR'$ ,  $-OC(=O)R'$ , -

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$(\text{CR}'\text{R}'')_x\text{OCH}_2\text{C}_2\text{R}'$ ,  $-(\text{CR}'\text{R}'')_xC(=\text{O})\text{R}'$ ,  $-\text{O}(\text{CR}'\text{R}'')_xC(=\text{O})\text{R}'$ ,  $-\text{C}_2(\text{CR}'\text{R}'')_x\text{O R}'$ ,  $-(\text{CR}'\text{R}'')_x\text{NR}'\text{R}''$ ,  $-\text{OC}(=\text{O})\text{NR}'\text{R}''$  and  $-\text{NR}'\text{C}(=\text{O})\text{OR}'$ ,

wherein  $x$  is an integer from 1 to 6,

$\text{R}'$  and  $\text{R}''$  are individually hydrogen or  $\text{C}_1\text{-C}_8$  alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

$\text{R}'$  and  $\text{R}''$  can form a cycloalkyl functionality,

any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents,

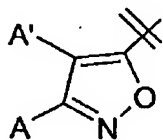
$j$  is an integer from 0 to 5,

$\text{Z}'$  represents hydrogen or lower alkyl,

the dotted lines in the structure signify bonds that can be either carbon-carbon single bonds or carbon-carbon double bonds with the proviso that where  $\text{B}'$  is alkylenic, only one dotted line represents a carbon-carbon double bond, and when  $\text{B}'$  is ethylenic or acetylenic, no dotted line represents a carbon-carbon double bond, and

ethylenic is  $-\text{CE}'=\text{CE}''-$ , wherein  $\text{E}'$  and  $\text{E}''$  are hydrogen or a non-hydrogen substituent as defined above with respect to  $\text{Z}$ .

42. (Previously Presented) The pharmaceutical composition of Claim 41 wherein  $\text{Cy}$  is:



wherein  $\text{A}$  and  $\text{A}'$  individually are either hydrogen or suitable non-hydrogen substituent species selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl,

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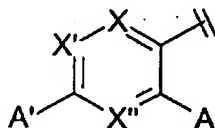
alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo,  $-NR'R''$ ,  $-CF_3$ ,  $-OH$ ,  $-CN$ ,  $-NO_2$ ,  $-C_2R'$ ,  $-SH$ ,  $-SCH_3$ ,  $-N_3$ ,  $-SO_2CH_3$ ,  $-OR'$ ,  $-SR'$ ,  $-C(=O)NR'R''$ ,  $-NR'C(=O)R'$ ,  $-C(=O)R'$ ,  $-C(=O)OR'$ ,  $-(CH_2)_xOR'$ ,  $-OC(=O)R'$ ,  $-(CR'R'')_xOCH_2C_2R'$ ,  $-(CR'R'')_xC(=O)R'$ ,  $O(CR'R'')_xC(=O)R'$ ,  $-C_2(CR'R'')_xOR'$ ,  $-(CR'R'')_xNR'R''$ ,  $-OC(=O)NR'R''$  and  $-NR'C(=O)OR'$ ,  
 wherein x is an integer from 1 to 6,

$R'$  and  $R''$  are individually hydrogen or  $C_1$ - $C_8$  alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

$R'$  and  $R''$  can form a cycloalkyl functionality, and

any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents.

43. (Previously Presented) The pharmaceutical composition of Claim 41 wherein Cy is



$X$ ,  $X'$  and  $X''$  are individually nitrogen, nitrogen bonded to oxygen or carbon bonded to a substituent species characterized as having a sigma m value between about  $-0.3$  and about  $0.75$ ,  $A$  and  $A'$  individually are either hydrogen or suitable non-hydrogen substituent species having a sigma m value between about  $-0.3$  and about  $0.75$ ,

wherein substituent species having a sigma m value between about  $-0.3$  and about  $0.75$  are selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, heterocyclyl, substituted heterocyclyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, arylalkyl, substituted arylalkyl, halo,  $-NR'R''$ ,  $-CF_3$ ,  $-OH$ , -

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CN, -NO<sub>2</sub>, -C<sub>2</sub>R', -SH, -SCH<sub>3</sub>, -N<sub>3</sub>, -SO<sub>2</sub>CH<sub>3</sub>, -OR', -SR', -C(=O)NR'R'', -NR'C(=O)R', -C(=O)R', -C(=O)OR', -(CH<sub>2</sub>)<sub>x</sub>OR', -OC(=O)R', -(CR'R'')<sub>x</sub>OCH<sub>2</sub>C<sub>2</sub>R', -(CR'R'')<sub>x</sub>C(=O)R', -O(CR'R'')<sub>x</sub>C(=O)R', -C<sub>2</sub>(CR'R'')<sub>x</sub>OR', -(CR'R'')<sub>x</sub>NR'R'', -OC(=O)NR'R'' and -NR'C(=O)OR',

wherein x is an integer from 1 to 6,

R' and R'' are individually hydrogen or C<sub>1</sub>-C<sub>8</sub> alkyl, an aromatic group-containing species or a substituted aromatic group-containing species, where the aromatic group-containing species are selected from the group consisting of pyridinyl, quinolinyl, pyrimidinyl, phenyl, and benzyl, or

R' and R'' can form a cycloalkyl functionality, and

any of the foregoing groups indicated as being substituted can be suitably substituted with at least one substituent group selected from the group consisting of alkyl, hydroxyl, alkoxy, halo, and amino substituents.

44. (Original) The pharmaceutical composition of Claim 43 wherein X'' is nitrogen.

45. (Original) The pharmaceutical composition of Claim 43 wherein X'' is selected from the group consisting of CNO<sub>2</sub>, CNH<sub>2</sub>, CNHCH<sub>3</sub> and CN(CH<sub>3</sub>)<sub>2</sub>.

46. (Original) The pharmaceutical composition of Claim 43 wherein X' and X'' are nitrogen.

47. (Original) The pharmaceutical composition of Claim 43 wherein Cy represents a 3-pyridyl moiety.

48. (Currently Amended) The pharmaceutical composition of Claim 41 wherein the compound is selected from the group consisting of:

(E)- and (Z)-5-(2-(7-azabicyclo[2.2.1]hept-2-yl)ethenyl)isoxazole and

(E)- and (Z)-5-(2-(7-azabicyclo[2.2.1]hept-2-yl)ethenyl)-3-methylisoxazole

~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-6-yl)ethenyl)isoxazole~~

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~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-6-yl)ethenyl)-3-methylisoxazole~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-2-yl)ethenyl)isoxazole and~~  
~~(E)- and (Z)-5-(2-(8-azabicyclo[3.2.1]oct-2-yl)ethenyl)-3-methylisoxazole.~~

49. (Currently Amended) The pharmaceutical composition of Claim 41 wherein the compound is selected from the group consisting of:

(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-methoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-ethoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-isopropoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-isobutoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-phenoxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-benzyloxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
(E)- and (Z)-2-(2-(5-methoxymethyl-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane;  
(E)- and (Z)-2-(2-(5-phenyl-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane, and  
(E)- and (Z)-2-(2-(5-hydroxy-3-pyridyl)ethenyl)-7-azabicyclo[2.2.1]heptane  
~~(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-8-azabicyclo[3.2.1]octane~~  
~~(E)- and (Z)-6-(2-(3-pyridyl)ethenyl)-8-azabicyclo[3.2.1]octane and~~  
~~(E)- and (Z)-2-(2-(3-pyridyl)ethenyl)-9-azabicyclo[4.2.1]nonane.~~

50. (Currently Amended) The pharmaceutical composition of Claim 41 wherein the compound is selected from the group consisting of:

2-(2-(3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-methoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-ethoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-isopropoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-isobutoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-phenoxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-benzyloxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane



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2-(2-(5-methoxymethyl-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
2-(2-(5-phenyl-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane and  
2-(2-(5-hydroxy-3-pyridyl)ethynyl)-7-azabicyclo[2.2.1]heptane  
~~2-(2-(3-pyridyl)ethynyl)-8-azabicyclo[3.2.1]octane~~  
~~6-(2-(3-pyridyl)ethynyl)-8-azabicyclo[3.2.1]octane and~~  
~~2-(2-(3-pyridyl)ethynyl)-9-azabicyclo[4.2.1]nonane.~~

51. (Original) The pharmaceutical composition of Claim 41 wherein m is 1, 2 or 3.
52. (Original) The pharmaceutical composition of Claim 41 wherein p is 0, 1 or 2.
53. (Original) The pharmaceutical composition of Claim 41 wherein q is 0 or 1.
54. (Original) The pharmaceutical composition of Claim 41 wherein j is 0 or 1.
55. (Original) The pharmaceutical composition of Claim 41 wherein B' is ethylenic.
56. (Original) The pharmaceutical composition of Claim 41 wherein B' is acetylenic.
57. (Original) The pharmaceutical composition of Claim 41 wherein B' is a two carbon atom bridging species.
58. (Original) The pharmaceutical composition of Claim 41 wherein j is 0; Z' is hydrogen or lower alkyl; m is 1, 2 or 3; q is 0 or 1; p is 1 or 2; and each of E' and E'' is hydrogen.
59. (Original) The pharmaceutical composition of Claim 68 wherein the sum of m and q is 3 or less.

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60. (Previously Amended) The pharmaceutical composition of Claim 41 wherein Cy is 3-pyridinyl unsubstituted or substituted in the 5 and/or 6 position(s), 5-pyrimidinyl unsubstituted or substituted in the 2 position, or 3- or 5-isoxazolyl unsubstituted or substituted in the 4 and/or 5 and 3 and/or 4 positions respectively.

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